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CHOW, CHARLES CHANG				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/674,780

**Applicant(s)**

NORTHCUTT ET AL.

**Examiner**

Charles Chow

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 11-21, 31-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 22-30, 41-43, 48-57 is/are rejected.
- 7) ☒ Claim(s) 44-47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**Detailed Action**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. This Office Action is re-opening based on the pre-brief conference request dated 10/19/2009. Referring to the Response to the Argument in the last pages of this Office Action.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi [ GB 2,380,908 A] in view of Adams et al. [ US 2006/0259,862 A1] and Dowling et al. [ US 2002/0038,157 A1] and **Bhadkamkar et al. [ US 2009/0097,823 ]**

**For claim 1**, Hayashi teaches a mobile communications device [mobile phone 101 in Fig.2] comprising

a wireless transceiver [ mobile phone 101 has the transceiver inherently, in order to transmit, receive, communication signal, with radio base station 105, for downloading play data, page 5, lines 20-22 ], a processor [ controller 201 ] configured to analyze the audio file, synchronize a complementary multi-media effects with the audio file based on the synchronizing information [ the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/ Fig. 6, page

7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21 ].

Hayashi fails to teach the calculating the synchronize information based on the analysis of the audio file.

Adams et al. [ Adams ] teaches the adjusting temp for audio playback based on user manually placed reference markers [ on display screen, use selects the adjusted tempo, synchronization, with the marker 170 at cursor on screen, the computer calculates the timing, tempo, based on the audio file 124, 126, 128, to synchronize the audio to the video 122, paragraph 0032, 0031, Fig. 1 & it corresponding description in the specification ], such that user can adjust the tempo synchronization for different audio to match the accompanying video [ paragraph 0006]. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi with Adams's teachings above, such that the video picture could be synchronized to different audio, by adjusting the tempo of the audio.

Hayashi in view of Adams fail to teach the generating a pattern, synchronously with the playback of the audio file.

Dowling et al. [ Dowling ] teaches the generating a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on the synchronizing information

[ the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the

inputted audio data in parag 0110; using parag for paragraph ], in order to emphasize the audio/music playing with the synchronized light effect. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams with Dowling's teaching above, such that the light effect could be synchronized to different audio/music played.

Hayashi, Adams with Dowling fail to teach the based on the calculated synchronizing information from audio file.

**Bhadkamkar et al. [ Bhadkamkar ]** teaches a processor configured to... generate a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on ... calculated synchronizing information [ processor calculating the video display rate, to synchronizing to the spoken audio data file, based on the stress, speed, tension of the spoken audio data, to inversely varying the video display rate, parag. 0041, the determining a target video display rate in step 102/Fg. 1, processor 201, display device 203 in Fig. 2; the calculating in parag. 0015/0092, abstract/summary of invention ], such that the video display can be synchronized to the audio data being played, based on the calculated displaying rate. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Dowling with Bhadkamkar's teaching above, such that the video display could be synchronized to the audio data being played, based on the calculated displaying rate.

**For claim 2**, Hayashi teaches the mobile phone communications device [ 101, Fig. 2], wherein said information is timing information [ the time information in tempo 501, the setting of tempo, playing speed, based on play data in page 8, lines 24-29].

**For claims 4,** Hayashi teaches the mobile phone communications device [ 101, Fig. 2], wherein said processor [201] stores the synchronizing information in said memory [ storing down loaded play data in RAM, which has synchronizing indicating data 501-503, 401-404].

**For claims 5,** Hayashi teaches the mobile phone communications device [ 101, Fig. 2], wherein said processor generates a control signal during playback of the audio file to control the complementary multi-media effect according to the synchronizing information [ the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28; sync data 502, 503].

**For claims 6,** Hayashi teaches the mobile phone communications device [ 101, Fig. 2], wherein the complementary multi-media effect comprises tactile feedback [vibrator 211], and said control signal controls a tactile feedback generator in synchronization with the synchronizing information [ the controller 210 generates electrical signal to synchronize vibrator 211 to played music, page 6, lines 22-28, sync data 503].

**For claims 7,** Hayashi teaches the mobile phone communications device [ 101, Fig. 2], wherein the complementary multi-media effect comprises one or more lights [210] and said control signal controls the one or more lights in synchronization with the synchronizing information [ the 201 generates electrical signal to emits light from Led 210 to synchronize with played music data specified in 403-404, page 6, lines 22-28].

**For claim 10,** Hayashi, Adam, Bhadkamkar fail to teach the controlling an external device.

Dowling teaches the wherein said the processor [ computer system 2009, Fig. 8 ] generate control signal [ signal from output port 2020] during playback of the audio file to control an external device connected via the system interface [ the lighting network connected to output port 2020] according to the synchronizing information

[ audio data 2005 & parag 0017, 0110], in order to control the external lighting network for the synchronized light effect. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Bhadkamkar with Dowling's teaching above, such that the external lighting network could provide the synchronized light effect.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams, Dowling, Bhadkamkar, as applied to claim 1 above, and further in view of Vandermeijden et al. [US 2004/0067,751 A1].

**For claim 3**, Hayashi teaches the mobile phone communications device [ 101, Fig. 2].

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the wherein said information is instrument type information.

Vandermeijden et al. [Vandermeijden] teaches the user can assign the sound of particular musical instrument to a group of callers, for the ring tone [ paragraph 0025], of the mobile telephone for identifying different caller [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Hayashi, Adams, Dowling, Bhadkamkar with Vandermeijden's different distinct instrument sound for notifying the incoming call, in order to identify different caller.

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams, Dowling, Bhadkamkar, as applied to claims 5 above, and further in view of Fredlund et al. [ US 6,639,649 B2].

**For claim 8**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2].

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the camera to take picture.

Fredlund et al. [Fredlund] teaches the wherein the complementary multi-media effect comprises a camera, and said control signal activates the camera to take a picture in synchronization with the synchronizing information.

[ the camera 10; the generate a signal by analyzing stored audio to capture plurality of images in col. 3, lines 23-47; the synchronizing pleasing effect is created in accordance with played music beat in col. 1, lines 1-6], to creating a better effect by playing music while taking a picture. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar fail to teach with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

**For claim 9**, Hayahsi teaches the mobile phone communications device 101 in Fig. 2.

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the complementary effect.

Fredlund teaches the wherein the complementary multi-media effect comprises a video sequence, and said control signal controls a display to playback said video sequence in synchronization with the synchronizing information

[ the music analyzer analyzing stored audio for determining when to display a sequence of stored images according to the stored audio and a audio reproducer for playing the audio recording, col. 1, line 57 to col. 2, lines 7; display 50]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar fail to teach with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

6. Claims 22-23, 25-28, 41, 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi [GB 2,380,908 A] in view of Adams-'862 A1 and Dowling -'157A1.



**For claim 22, Hayashi** teaches a method [steps in Fig. 3] of synchronize multi-media effects with an audio file in a mobile communications device [ steps 306, 312, to synchronize of the music data with the light/vibration effect from LED 210/vibrator 211 of a mobile phone, abstract, Fig. 2],

the method comprising analyzing an audio file stored in memory of the mobile communications device [ the controller 201 analyzes synchronizing data 501-503 & music indicating data 401-404, to determine the music data for synchronizing with LED or vibrator page 7, lines 5-28, Fig. 4-6; the play data in Fig. 4-5, stored in RAM of memory 202, as the audio file in memory ]

synchronize a complementary multi-media effects in the mobile communications device with audio file based on the synchronizing information [ the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21 ].

Hayashi fails to teach the calculating synchronizing information based on the analysis of the audio file.

**Adams** teaches the adjusting temp for audio playback based on user manually placed reference markers [ the calculating synchronizing information based on the analysis of the audio file [ on display screen, use selects the adjusted tempo, synchronization, with the marker 170 at cursor on screen, the computer calculates the timing, tempo, based on the audio file 124, 126, 128, to synchronize the audio to the video 122, paragraph 0032, 0031,

Fig. 1 & it corresponding description in the specification ], such that user can adjust the tempo synchronization for different audio to match the accompanying video [ paragraph 0006]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi with Adams's teachings of adjusting the tempo of the audio to match the accompanying video, such that the video could be synchronized to different audio, by adjusting the tempo of the audio.

Hayashi, Adams fail to teach the generating a pattern, synchronously with the playback of the audio file.

**Dowling** teaches the generating a pattern in which to render a complementary multimedia effect synchronously with the playback of the audio file based on the synchronizing information

[ the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph ], in order to emphasize the audio/music playing with the synchronized light effect. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams with Dowling's teaching above, such that the light effect could be synchronized to different audio/music played.

Hayashi, Adams with Dowling fail to teach the based on the calculated synchronizing information from audio file.

**Bhadkamkar** teaches a processor configured to... generate a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on ... calculated synchronizing information

[ processor calculating the video display rate, to synchronizing to the spoken audio data file, based on the stress, speed, tension of the spoken audio data, to inversely varying the video display rate, parag. 0041, the determining a target video display rate in step 102/Fg. 1, processor 201, display device 203 in Fig. 2; the calculating in parag. 0015/0092, abstract/summary of invention ], such that the video display can be synchronized to the audio data being played, based on the calculated displaying rate. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Dowling with Bhadkamkar's teaching above, such that the video display could be synchronized to the audio data being played, based on the calculated displaying rate.

**For claim 23**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2], wherein said information is timing information [the time information in tempo 501, the setting of tempo, playing speed, in page 8, lines 24-29].

**For claim 25**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2], wherein said processor [201] stores the synchronizing information in said memory [ storing down loaded play data in RAM, which has synchronizing indicating data 501-503, 401-404].

**For claim 26**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2], wherein said processor generates a control signal during playback of the audio file to control the complementary multi-media effect according to the synchronizing information

[ the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28].

**For claim 27**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2], wherein the complementary multi-media effect comprises tactile feedback [vibrator 211], and said control signal controls a tactile feedback generator in synchronization with the synchronizing information [ the controller 210 generates electrical signal to synchronize vibrator 211 to played music, page 6, lines 22-28].

**For claim 28**, Hayashi teaches the mobile phone communications device [ 101 in Fig. 2], wherein the complementary multi-media effect comprises one or more lights [210] and said control signal controls the one or more lights in synchronization with the synchronizing information [ the 201 generates electrical signal to emits light from Led 210 to synchronize with played music data specified in 403-404, page 6, lines 22-28].

**For claim 41**, Hayashi teaches a method of synchronizing one or more complementary multi-media effects [ the synchronizing of the music data with vibrator 211, LED 210 in abstract] with an audio file [ the memory 202, page 6, lines 1-7, has music identifier 403 & note number 404 in Fig. 4, page 9, 12-21] in a mobile communications device [mobile phone, page 1, lines 5-10], the method comprising selecting a sample from an audio file stored in memory in a mobile communications device [ the controller selects the music data contained in play data page 9, lines 3-11 & the indicating data 501-503 in Fig. 5; the indicating data in Fig. 4 contains the music identifier 403 & note number 404 in page 9, lines 5-21; stored in RAM of memory 202];

analyzing said sample [ the 201 determines whether or not the music is contained in the play data S303, page 7, lines 5-15; the mobile phone in Fig. 2; the controller 201 sets the

play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21 ].

Hayashi fails to teach the calculating synchronizing information based on the analysis of the audio file.

**Adams** teaches the adjusting temp for audio playback based on user manually placed reference markers [ the calculating synchronizing information based on the analysis of the audio file [ on display screen, use selects the adjusted tempo, synchronization, with the marker 170 at cursor on screen, the computer calculates the timing, tempo, based on the audio file 124, 126, 128, to synchronize the audio to the video 122, paragraph 0032, 0031, Fig. 1 & it corresponding description in the specification ], such that user can adjust the tempo synchronization for different audio to match the accompanying video [ paragraph 0006]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi with Adams's teachings of adjusting the tempo of the audio to match the accompanying video, such that the video could be synchronized to different audio, by adjusting the tempo of the audio.

Hayashi, Adams fail to teach the generating a pattern, synchronously with the playback of the audio file.

**Dowling** teaches the generating a pattern in which to render a one or more complementary multi-media effect, synchronously with the playback of the audio file based on the synchronizing information

[ the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph ], in order to emphasize the audio/music playing with the synchronized light effect. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams with Dowling's teaching above, such that the light effect could be synchronized to different audio/music played.

Hayashi, Adams with Dowling fail to teach the based on the calculated synchronizing information from audio file.

**Bhadkamkar** teaches a processor configured to... generate a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on ... calculated synchronizing information

[ processor calculating the video display rate, to synchronizing to the spoken audio data file, based on the stress, speed, tension of the spoken audio data, to inversely varying the video display rate, parag. 0041, the determining a target video display rate in step 102/Fg. 1, processor 201, display device 203 in Fig. 2; the calculating in parag. 0015/0092, abstract/summary of invention ], such that the video display can be synchronized to the audio data being played, based on the calculated displaying rate. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Dowling with Bhadkamkar's teaching above, such that the video display could be synchronized to the audio data being played, based on the calculated displaying rate.

**For claim 54,** Hayashi fails to teach the features in this claim. Shibata teaches the method further comprising overwriting selected information in the audio file with the synchronizing information [ the overwriting selected indicating "1 ON", "2 OFF", in to memory 80, for synchronizing melody with vibration, or different screens 30, paragraph 0029-0033], using the same rationale in claim 31 for combining Shibata to Hayashi.

**For claim 55,** Hayashi teaches the further comprising the storing the synchronizing information in memory of the mobile communications device [the mobile phone downloading play data for storing in RAM, page 6, lines 1-7].

**For claim 56,** Hayashi teaches the wherein synchronizing the one or more complementary multi-media effects with the audio file [ the synchronizing of LED, vibrator to music data in indicating data 403-404 of the play data in Fig. 5] comprises generating a control signal to the one or more multi-media effects based on the synchronizing information during playback of the audio file [the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28].

**For claim 57,** Hayashi teaches a circuit [ Fig. 2] comprising a microprocessor [controller 210] programmed to analyzing an audio stream [ the program to be executed by controller 201, page 6 lines 1-3 & the step 306 in Fig. 3; the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21; based no the music playback from the downloaded music, page 4, lines 4-11 & page 5, lines 20-23].

Hayashi fails to teach the calculating synchronizing information based on the analysis of the audio file.

**Adams** teaches the adjusting temp for audio playback based on user manually placed reference markers [teaches the calculating synchronizing information based on the analysis of the audio file [ on display screen, use selects the adjusted tempo, synchronization, with the marker 170 at cursor on screen, the computer calculates the timing, tempo, based on the audio file 124, 126, 128, to synchronize the audio to the video 122, paragraph 0032, 0031, Fig. 1 & it corresponding description in the specification ], such that user can adjust the tempo synchronization for different audio to match the accompanying video [ paragraph 0006]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi with Adams's teachings of adjusting the tempo of the audio to match the accompanying video, such that the video could be synchronized to different audio, by adjusting the tempo of the audio.

Hayashi, Adams fail to teach the generating a pattern, synchronously with the playback of the audio file.

**Dowling** teaches the generating a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on the synchronizing information

[ the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph ], in order to emphasize the audio/music playing with the synchronized light effect. Therefore, one of ordinary skill in the



art at the time the invention was made would have been obvious to modify Hayashi, Adams with Dowling's teaching above, such that the light effect could be synchronized to different audio/music played.

Hayashi, Adams with Dowling fail to teach the based on the calculated synchronizing information from audio file.

**Bhadkamkar** teaches a processor configured to... generate a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on ... calculated synchronizing information

[ processor calculating the video display rate, to synchronizing to the spoken audio data file, based on the stress, speed, tension of the spoken audio data, to inversely varying the video display rate, parag. 0041, the determining a target video display rate in step 102/Fg. 1, processor 201, display device 203 in Fig. 2; the calculating in parag. 0015/0092, abstract/summary of invention ], such that the video display can be synchronized to the audio data being played, based on the calculated displaying rate. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Dowling with Bhadkamkar's teaching above, such that the video display could be synchronized to the audio data being played, based on the calculated displaying rate.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams, Dowling, Bhadkamkar, as applied to claim 22 above, and further in view of Vandermeijden-'751 A1.

**For claim 24**, Hayashi teaches the mobile phone communications device [ Fig. 2].

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the instrument type.

Vandermeijden teaches the wherein said information is instrument type information [ the user can assign the sound of particular musical instrument to a group of callers, for the ring tone, paragraph 0025], of the mobile telephone for identifying different caller [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Hayashi, Adams, Dowling, Bhadkamkar with Vandermeijden's different distinct instrument sound for notifying the incoming call, in order to identify different caller

8. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over ayashi in view of Adams, Dowling, Bhadkamkar, as applied to claim 26 above, and further in view of Fredlund-'649 B2.

**For claim 29,** Hayashi teaches the mobile phone communications device in Fig. 2.

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the complementary multi-media effect with camera.

Fredlund teaches wherein the complementary multi-media effect comprises a camera, and said control signal activates the camera to take a picture in synchronization with the synchronizing information [ the camera 10; the generate a signal by analyzing stored audio to capture plurality of images in col. 3, lines 23-47; the synchronizing pleasing effect is created in accordance with played music beat in col. 1, lines 1-6], to creating a better effect by playing music while taking a picture. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

**For claim 30,** Hayahsi teaches the mobile phone communications device in Fig. 2.

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the complementary multi-media effect with video sequence.

Hayashi, Adams fail to teach the wherein the complementary multi-media effect comprises a video sequence, and said control signal controls a display to playback said video sequence in synchronization with the synchronizing information.

Fredlund teaches these features [ the music analyzer analyzing stored audio for determining when to display a sequence of stored images according to the stored audio and a audio reproducer for playing the audio recording, col. 1, line 57 to col. 2, lines 7; display 50]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

9. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams, Dowling, Bhadkamkar, as applied to claim 41 above, and further in view of Aoki-'802.

**For claim 42,** Hayashi teaches the wherein analyzing said sample to determine synchronizing information [ the analyzing music data in indicating data 401-404, for determine the synchronizing music data].

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the equivalent number of notes.

Aoki teaches the sectioning said sample into a plurality of measures, each said measure comprising an equivalent number of notes.

[ the search a sound pattern via chord analysis of each divided sound performance section, sample, which has a predetermined number of beats, col. 1, line 58 to col. 2, line 6, Fig. 2-6; the predetermined number of beats is the equivalent number of notes in the

measure], in order to identify a sound section [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar with Aoki's predetermined number of beats in the performance section, in order to identify the music data.

**For claim 43**, Hayashi teaches the controller 201 to determined the synchronizing information as shown in claim 1.

Hayashi, Adams, Dowling, Bhadkamkar fail to teach the beat, in said measure.

Aoki teaches the wherein analyzing said sample determine the notes that occur within a desired beat in each said measure [ the analyzing divided section of the performance data & comparing the harmonic tone associated with the sound pattern S1-S4, for identifying a sound pattern in col. 7, lines 10-33; the predetermined number of beats in col. 1, line 58 to col. 2, line 6], in order to identify a sound section [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams, Dowling, Bhadkamkar with Aoki's predetermined number of beats in the performance section, in order to identify the music data.

10. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams-'862, Dowling, Bhadkamkar, as applied to claim 41 above, and further in view of Adams [ US 2003/0017,808 A1].

**For claim 48**, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to calculate the synchronizing information 502-502, 401-404, in claim 22 above. Hayashi, Shibata, Adams-862A1 fail to teach the sampling the output of a MIDI synthesizer.

Adams teaches the sampling the output of a MIDI synthesizer [ the processor GPP 12 parses the MIDI output stream into synthesis packets for outputting audio signal via DAC 16, paragraph 0019, Fig. 1-2], for the low cost 3G wireless phone [0016]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi, Adams-'862, Dowling, Bhadkamkar with Adams-'808s teachings above, such that the cost could be reduced, by processing the MIDI data stream, of the packet synthesis.

11. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view Adams-'862, Dowling, Bhadkamkar, Adams-'808s, as applied to claim 48 above, and further in view of Fujiwara et al. [US 6, 800,799 B2].

**For claim 49**, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to determine the synchronizing information 502-502, 401-404.

Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808 fail to teach the detecting a peak amplitude within said sample.

Fujiwara teaches these features [ the detecting of the peaks of audio signal AL1 during playback, for synchronization, in col. 12, lines 18-27; the applying threshold TH1 to audio peaks in col. 13, lines 16-20], in order to synchronize the timing of the audio playing back [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808s with Fujiwara's teachings above, such that the timing could be synchronized to the audio playing back

**For claim 50**, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to determine the synchronizing information 502-502, 401-404.

Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808 fail to teach comparing to threshold.

Fujiwara teaches the comparing said detected peak amplitude to a threshold value [ the detecting of the peaks of audio signal AL1 during playback, for synchronization, in col. 12, lines 18-27; the applying threshold TH1 to audio peaks in col. 13, lines 16-20]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808s with Fujiwara's teachings above, such that the timing could be synchronized to the audio playing back.

12. Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams-'862, Dowling, Bhadkamkar, Adams-'808, Fujiwara, as applied to claim 50 above, and further in view of Goldberg et al. [ US 2007/0136,769 A1].

**For claim 51**, Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808, Fujiwara fail to teach the threshold comparison.

Goldberg et al. [Goldberg ] teaches the wherein synchronizing the one or more complementary multi-media effects with the audio file comprises generating a control signal based on the comparison of said detected peak amplitude and said threshold value [ synchronizing audio playback in parag 0078, 0307; the comparing the maximum amplitude with threshold in parag 0291], in order to identify the music [ parag 0290]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Dowling, Bhadkamkar, Adams-'808, Fujiwara with Goldberg's teachings above, such that the music could be identified for playing back

**For claims 52, 53**, Hayashi, Adams-'862, Bhadkamkar, Adams-'808, Fujiwara fail to teach the varying the intensity.

Dowling teaches the wherein synchronizing the one or more multi-media effects with the audio file varying the intensity, varying the duration of activation, of the one or more complementary multi-media effects based on audio input [ modifying the intensity in parag 0047; defined duration in parag 0045; & parag 0017/0110], in order to indicate the synchronization with varying intensity. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Bhadkamkar, Adams-'808, Fujiwara with Dowling's teachings above, such that the synchronization effect could be indicated with varying intensity.

Hayashi, Adams-'862, Bhadkamkar, Adams-'808, Fujiwara with Dowling fail to teach the threshold comparison.

Goldberg teaches the the comparison of said detected peak amplitude and said threshold value [synchronizing audio playback in parag 0078, 0307; the comparing the maximum amplitude with threshold in parag 0291], in order to identify the music [ parag 0290]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Bhadkamkar, Adams-'808, Fujiwara, Dowling with Goldberg's teachings above, such that the music could be identified for playing back.

### **Claims Objection**

13. Claims 44-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**For claim 44**, the cited prior arts in below fail to teach the analyzing said sample to determining synchronizing information further comprising calculating weight value by

summing a velocity parameter of a corresponding note-on event for each said note that occurs within said desired beat in each said measure.

For claim 45, the cited prior arts in below fail to teach the wherein analyzing said sample to determine synchronizing information comprises calculating a first value and a second value based on a first candidate time signature and a second candidate time signature, respectively. **Claims 46-47** are objected to due to their dependency upon objected claim 45.

Other prior arts are also considered. They are: **Armanto et al. [US 6,094,587]**, **Chung [US 2003/0162,571 A1]**, **Nishitani [US 2003/0045,274 A1]**, **Matsuda et al. [US 2001/0014,616 A1]**, **Ito [US 6,597,928 B2]**, **Kawasaki et al. [US 2002/0142,810 A1]**, **Kim [US 6,278,884 B1]**, **Brown et al. [US 2005/0190,199A1]**.

#### **Response to Argument**

14. Applicant's arguments with respect to claims 1-10, 22-30, 41-43, 48-57 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued the no teachings from cited prior arts for **A> a processor configured to... generate a pattern in which to render a complementary multi-media effect synchronously with the playback of the audio file based on ... calculated synchronizing information** [ pages 2, 4 of applicant's pre-brief conference request, 10/19/2009 ],

**Bhadkamkar et al. [ US 2009,0097,823 ]** teaches the above limitations in A>, the processor calculating the video display rate, to synchronizing to the spoken audio data file, based on the stress, speed, tension of the spoken audio data, to inversely varying the video display rate [ parag. 0041], the determining a target video display rate in step 102/Fg. 1, processor 201, display device 203 in Fig. 2; the calculating in [ parag. 0015/0092, abstract/summary of invention ]



**Conclusion**

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Charles Chow/  
Examiner, Art Unit 2618  
January 29, 2010.

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2618